

## Datasheet: MCA1133A647T

<b>Description:</b>	MOUSE ANTI HUMAN CD49a:Alexa Fluor® 647
<b>Specificity:</b>	CD49a
<b>Other names:</b>	INTEGRIN ALPHA 1 CHAIN, VLA-1
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	TS2/7
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	25 TESTS/0.25ml

### Product Details

#### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

#### Target Species

Human

#### Product Form

Purified IgG conjugated to Alexa Fluor® 647 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

#### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

#### Buffer Solution

Phosphate buffered saline

#### Preservative Stabilisers

0.09% sodium azide (NaN<sub>3</sub>)  
1% bovine serum albumin

#### Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

**Immunogen** Human CTL line directed against HLA-DR.

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**External Database**

**Links**

**UniProt:**

[P56199](#) [Related reagents](#)

**Entrez Gene:**

[3672](#) ITGA1 [Related reagents](#)

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**RRID**

AB\_1102116

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**Fusion Partners**

Spleen cells from immunized Balb.c mice were fused with cells of the NS1 mouse myeloma.

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**Specificity**

**Mouse anti Human CD49a antibody, clone TS2/7** recognizes the human alpha 1 integrin sub-unit, which forms the VLA-1 heterodimer in association with the beta 1 integrin. VLA-1 is a receptor for collagen and laminin, and is expressed by chronically activated T cells, melanoma cells and smooth muscle cells.

Mouse anti Human CD49a antibody, clone TS2/7 has been reported as being suitable for use in Western Blotting.

Mouse anti Human CD49a antibody, clone TS2/7 is routinely tested in flow cytometry using HeLa cells.

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**Flow Cytometry**

Use 10 $\mu$ l of the suggested working dilution to label 10<sup>6</sup> cells in 100 $\mu$ l.

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**References**

1. Hemler, M.E. *et al.* (1985) Biochemical characterization of VLA-1 and VLA-2. Cell surface heterodimers on activated T cells. [J Biol Chem. 260 \(28\): 15246-52.](#)
2. Hafler, D.A. *et al.* (1985) Investigation of in vivo activated T cells in multiple sclerosis and inflammatory central nervous system diseases. [Clin Immunol Immunopathol. 37 \(2\): 163-71.](#)
3. Klemmt, P.A. *et al.* (2007) Endometrial cells from women with endometriosis have increased adhesion and proliferative capacity in response to extracellular matrix components: towards a mechanistic model for endometriosis progression. [Hum Reprod. 22: 3139-47.](#)
4. Berry, P.A. *et al.* (2011) The calcium sensor STIM1 is regulated by androgens in prostate stromal cells. [Prostate. 71: 1646-55.](#)
5. Elshaw, S.R. *et al.* (2001) A comparison of ocular melanocyte and uveal melanoma cell invasion and the implication of alpha1beta1, alpha4beta1 and alpha6beta1 integrins. [Br J Ophthalmol. 85: 732-8.](#)
6. Cervar-Zivkovic, M. *et al.* (2011) Endothelin-1 Stimulates Proliferation of First-Trimester Trophoblasts via the A- and B-Type Receptor and Invasion via the B-Type Receptor. [J Clin Endocrinol Metab. 96: 3408-15.](#)
7. Kaneko, Y. *et al.* (2012) Integrin  $\alpha$ 1/ $\beta$ 1 and  $\alpha$ 2/ $\beta$ 1 as a receptor for IgA1 in human glomerular mesangial cells in IgA nephropathy. [Int Immunol. 24: 219-32.](#)
8. Majali-Martinez, A. *et al.* (2018) Temporal changes of the endothelin system in human cytotrophoblasts during the first trimester of pregnancy. [Physiol Res. 67 \(Suppl 1\):](#)

[S247-S255.](#)

9. Zhuang, L. *et al.* (2021) Dermal Pericytes Exhibit Declined Ability to Promote Human Skin Regeneration with Ageing in 3D Organotypic Culture Models [Cells. 10 \(11\): 3051.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1133A647T>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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